

REMARKS

Applicant requests favorable reconsideration and allowance of this application in view of the foregoing amendments and the following remarks.

Claims 1-3, 5-14, 17, and 18 are pending in this application, with Claims 1, 5, 9, 11, 13, 17, and 18 being independent.

In response to a telephonic restriction requirement, Applicant elected to prosecute Group I, Claims 1-3, 9-12, and 17, which election is hereby confirmed. Accordingly, Claims 5-8, 13, 14, and 18 stand withdrawn from consideration.

Claims 1, 9, 11 and 17 have been amended. Applicant submits that support for the amendments can be found in the original disclosure at least, for example, at page 18, line 25 through page 19, line 5 and page 20, lines 13-16 of the specification. Therefore, Applicant submits that no new matter has been added.

Claims 1-3, 9-12, and 17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,378,070 (Chan) in view of U.S. Patent No. 6,360,320 (Ishiguro). Applicant respectfully traverses this rejection for the reasons discussed below.

As recited in independent Claim 1, the present invention includes, *inter alia*, a random number generation unit adapted to generate a random number and a print data encryption unit adapted to encrypt print data using the random number as an encryption key. The invention of Claim 1 also includes a code reception unit adapted to receive a personal identification code, the personal identification code being input by a user of an information processing apparatus via an operation unit. A code conversion unit is adapted to convert the received personal identification code by using a predetermined function, and a random number encryption unit is adapted to

encrypt the generated random number by using the personal identification code or the converted personal identification code. A transmission unit is adapted to transmit the encrypted random number, the converted personal identification code, and the encrypted print data to a print control apparatus.

In accordance with the above-mentioned features of Claim 1, the random number used to encrypt the print data is itself encrypted using a personal identification number (PIN) input by a user of the information processing apparatus via an operation unit. Since the PIN can be arbitrarily determined by the user who inputs it, and is only known to that user, only the user who creates/knows the PIN can decrypt the random number and thereby decrypt the print data.

Applicant submits that the cited art fails to disclose or suggest at least the above-mentioned features of Claim 1. Chan is similar to the invention of Claim 1 only in that Chan discloses that print data is encrypted. In contrast to the invention of Claim 1, however, Chan discloses that print data is encrypted using a public key for a computer user, where the public key is obtained from a directory server 120. Thus, Chan fails to disclose or suggest encrypting a random number using a PIN input by a user of the information processing apparatus using an operation unit, as recited in Claim 1.

While Chan may provide security for encrypted print data, it does so by using public key/private key pairs, which involves increased costs due to the higher complexity of generating public key/private key pairs and the need for a directory server to manage the relationship between a user's identity and the associated public key. In contrast, since the invention of Claim 1 has the user input the PIN using an operation device, the PIN is secure and no separate directory server is needed.

Applicant submits that Ishiguro likewise fails to disclose or suggest at least the above-mentioned features and fails to remedy the above-noted deficiencies of Chan. Ishiguro discloses a technique of securely transmitting data from a DVD player 1 (source) on a transmission side to a PC 2 (sink) on a reception side. The DVD player 1 obtains the ID of the PC 2 from the PC and uses a license key obtained by applying a hash function to the data in which the ID of PC 2 and a service key provided by a copyright holder are linked. Thus, that patent does not disclose or suggest that a PIN is input by a user of an information processing apparatus using an operation unit.

For the foregoing reasons, Applicant submits that the present invention recited in independent Claim 1 is patentable over the art of record, whether that art is taken individually or considered in combination.

Independent Claims 9, 11, and 17 recite features similar to some of the above-discussed features of Claim 1, and those claims are believed patentable for reasons similar to Claim 1.

The dependent claims are patentable for at least the same reasons as the independent claims, as well as for the additional features they recite.

In view of the foregoing, Applicant submits that this application is in condition for allowance. Favorable reconsideration and an early Notice of Allowance are requested.

Applicant's undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'B. L. Klock', written over a horizontal line.

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